

**AMENDMENTS TO THE DRAWINGS**

Please substitute the enclosed sheets 8/8, labeled “Replacement Sheet,” for the corresponding sheets presently in the case.

In response to an objection, Figs. 16 and 17 are amended to designate the retaining device with numeral “107,” to avoid a duplication of reference numerals, consistent with the amendment to the specification at page 10.

It is believed that the amendments to the drawings address all objections raised in the Office Action. Therefore, it is requested that the objections be withdrawn and that the drawings be accepted.

**REMARKS**

The specification and drawings are amended to designate retaining device 107 in Figs. 16 and 17, to avoid duplication of reference numerals.

Claim 1 is amended to recite that the mat retains the plasma-generating substrate in the housing, a feature recited originally in the claim. The amendment merely restores a feature deleted in a prior amendment and so does not add any new matter. Further, the added language was originally considered and so does not necessitate further searching. Therefore, it is respectfully requested that the amendment be entered. In the event that the claim is still deemed unpatentable, it is requested that the amendment be entered nevertheless, if only for purpose of clarifying issues for appeal.

*Claim Rejections under Section 102(e) based upon Foster '241*

Claims 1 and 5 were rejected under 35 U.S.C. § 102(e) as anticipated by Foster et al.

Applicants' non-thermal plasma reactor in claim 1 includes a mat disposed about the plasma generating substrate. The mat retains the plasma generating substrate within the housing. In addition, the claim calls for an electrically insulating layer between the mat and the housing. In Foster '241, the rejection points to separator 24 as corresponding to the mat in Applicants' reactor and layer 28, 31 as corresponding to the insulating layer

in Applicants' reactor. However, a fair reading of the patent reveals that layer 28 retains the substrate in the housing, col. 5, lines 28-30, and so corresponds to the mat in the present claim 1. In Foster '241, the object of separator 24 is to space apart plates 12, 14. To accomplish this, separator 24 is necessarily located adjacent the plates. The present invention provides an insulating layer between the mat and the substrate. Foster '241 does not provide an insulating layer between the mat and the housing. Thus, Foster '241 does not anticipate Applicants' reactor in claim 1.

Claim 5 is dependent upon claim 1 and so not anticipated by Foster '241 for the reasons set forth above.

Therefore, it is respectfully requested that the rejection of claims 1 and 5 as anticipated by Foster '241 be reconsidered and withdrawn and that the claims be allowed.

*Rejections of claims 2, 6-7 and 10-11 under Section 103*

Claims 2 and 6-7 were rejected under 35 U.S.C. § 103 as unpatentable over United States Patent No. 6,797,241, issued to Foster in 2004, in view of United States Patent No. 6,464,945, issued to Hemingway in 2002. Claims 10-11 were rejected under 35 U.S.C. § 103 as unpatentable over Foster '241 in view of Hemingway and further in view of United States Patent No. 6,159,430, issued to Foster in 2000.

Each of the rejections relies upon Foster '241 as the primary reference. While

Applicants contend that, for the reasons previously presented in their prior Amendment, Foster '241 does not suggest their invention even when combined with the other references, Applicants' nevertheless request that Foster '241 be withdrawn as a reference against the present application. Foster '241 was published on September 28, 2004, after the present application was filed on June 14, 2001. In accordance with the rejection, Foster '241 qualifies as prior art under 35 U.S.C. § 102(e). However, Section 103(c) provides that prior art under Section 102(e) does not preclude patentability where the subject matter and the claimed invention were owned by the same person or subject to an obligation of assignment to the same person at the time the claimed invention was made. In this instance, Foster '241 was assigned to Delphi Technologies, Inc. At the time the present invention was made, the present invention was also assigned to or under an obligation of assignment to Delphi Technologies, Inc. Thus, Foster '241 is not a proper reference under Section 103 and should be withdrawn.

The remaining secondary references do not teach or suggest Applicants' invention.

Claims 2, 5-7 and 10-11 are dependent upon claim 1. Claim 1 is directed to Applicants' non-thermal plasma reactor that includes an electrically insulating layer between the mat and the housing, as shown in Fig. 6. Referring to Fig. 8, Hemingway discloses a reactor assembly 70 wherein the reactor element 52 is surrounded by a dielectric mat 74 and arranged in a housing 72, see col. 6, beginning at line 7. The mat in Hemingway is arranged against the housing, with no electrically insulating layer therebetween. Foster '430 describes a catalytic converter that is not a non-thermal

plasma reactor. Foster '430 does not include the electrical connections and so does not have or need an electrically insulating layer between the mat and the housing. Thus, these references do not teach or suggest Applicants' non-thermal plasma reactor in claim 1, or in claims 2, 6-7 and 10-11 dependent thereon.

Therefore, it is respectfully requested that the rejection of claims under Section 103 be reconsidered and withdrawn, and that the claims be allowed.

*Rejections of claims 13 and 18-19 under Section 103*

Claims 13 and 18-19 were rejected under 35 U.S.C. § 103 as unpatentable over Foster '241 in view of Hemingway, United States Patent No. 6,158,820, issued to Foster in 2001, and United States Patent No. 5,996,228, issued to Shoji et al. in 1999.

For the reasons above, Foster '241 is assigned to the assignee of the present invention, and so does not qualify as prior art under Section 103 and should be withdrawn as a reference.

Claim 13 is directed to a non-thermal plasma reactor that includes a compression stop disposed about the plasma-generating substrate apart from the housing, e.g., stop 92 in Figs. 13 and 14. It is noted that the claim recites a housing that includes an end plate. Hemingway compresses the mat between the substrate and the end of the housing 72, and does not provide an element mounted on the substrate to enhance this end mat

compression. Foster '820 describes a catalytic converter, in contrast to a non-thermal plasma reactor, and does not show an element mounted on the substrate for compressing the mat against an end plate. Shoji et al. shows a catalytic converter, as opposed to a non-thermal plasma reactor as in the present invention, and does not provide a compression stop to compress the mat to a greater density against the end plate than between the substrate and the endplate. Thus, the references do not show a compression stop or any similar element for increasing the density of the mat against the end plate, and so cannot point the practitioner to Applicants' non-thermal plasma reactor in claim 13, or dependent claims 18-19.

Therefore, it is respectfully requested that the rejection of claims 13 and 18-19 under Section 103 be reconsidered and withdrawn, and that the claims be allowed.

#### *Double Patenting Rejections*

Claims 1 and 5 were rejected under the judicially created doctrine of obviousness-type double patenting over Foster '241. Claims 2, 6-7 were rejected under the doctrine of double patenting over Foster '241 in view of Hemingway. Claims 10-11 were rejected under the doctrine of double patenting over Foster '241 in view of Hemingway and Foster '430. Claims 13 and 18-19 were rejected under the doctrine of double patenting over Foster '241 in view of Hemingway and Foster '820.

Enclosed is a Terminal Disclaimer disclaiming any portion of the term of a patent

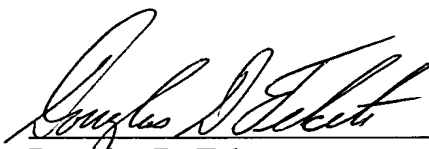
granted on the present application that exceeds the term for Foster '241. The Terminal Disclaimer renders moot the double patenting rejection. Therefore, it is requested that the double patenting rejections based upon Foster '241 be withdrawn, and that the claims be allowed.

*Conclusion*

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



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